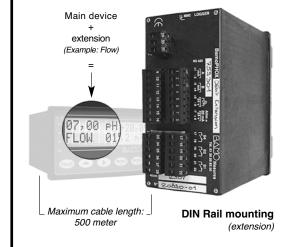# pH/mV meter
BAMOPHOX 106

Panel mounting *(main device)*

Wall mountig *(main device)*

- **pH/ORP programmable monitor and regulator**
- **Alphanumeric back lighted LCD display**
- **Friendly using menu**

- **Scales:**
    0 - 14 pH and ± 1000 mV
    through configuration

- **Temperature compensation**
    Automatic or manual

- **2 analogical outputs 0/4-20mA**
    galvanic insulated

- **4 relay outputs (Normally Open contacts)**

- **1 input to switch the regulation on Stand-by**

- **2 models available:**
    Panel mounting 72 x 144
    Wall mounting IP 65

- **OPTIONS:**
    RS 422 /J-BUS + LOGGER
    Extension for 2nd measurement input
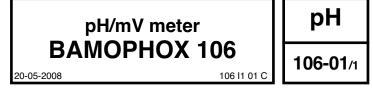
EXTENSION TERMINAL

An extension terminal (wall, panel mounting or DIN rail mounting):
- Allows a second measurement parameter (pH, Conductivity, Chlorine, Turbidity, Flow, and 4-20 mA, depending of the model)
- The data from this blind device are displayed on the main device (second line display).
- A 4 wires shielded cable is necessary to link both devices (maximum length of 500m)
- The options RS422 and the data logger are shared between both Bamophox.

Main device
+
extension
(Example: Flow)

=

Maximum cable length: 500 meter

DIN Rail mounting
(extension)

DESCRIPTION

The BAMOPHOX 106 offers high flexibility on use mixing different built-in programmes for regulation, thresholds, temperature compensation, and alarms. The 2 lines back lighted display, 16 alphanumerical characters, gives an easy measurement and temperature reading in any conditions. It also displays the configuration menu and settings of thresholds, analogical outputs, operation data modes, calibration steps. To allow a quick and easy diagnostic after configuration a simulation program is built-in with direct actuation on contacts outputs, analogical outputs and PID regulation. A copy of the signal on the 4-20 mA output is galvanic insulated; it can be set up within the all range of the parameter. Temperature measurement is also available on a 4-20 mA output (this output is not available when PID regulation is in use).

pH/mV meter
BAMOPHOX 106

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pH

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TECHNICAL FEATURES

Displayed parameters:	Measurement values pH/ORP - Configuration Menu - Temperature value
Display:	Back lighted - 2 lines of 16 alphanumerical characters ; 9,2 mm high
Indication:	LED alarms status
Configuration:	8 push buttons keyboard on front face - Keyword protected
Scales:	0 to 14 pH pH–meter configuration / ±1000 mV ORP–meter configuration
Accuracy:	± 0,03 pH or ± 3 mV
Input impedance:	>10^{13} Ω
Probe input:	coaxial connector, code 9054
Temperature compensation:	Automatic with an input for a 3 wires Pt 100 Ohm/0°C range, 0…100°C
	Manually from 0…100°C
Relay outputs:	4 closing contacts (Silver alloy), voltage free
Thresholds:	3 programmable independent thresholds - with adjustable hysteresis 0…100% - and adjustable timer from 0 to 9999 sec
Output relay (S4)	Common alarm signal for:
	- Too long injection
	- Temperature out of range:
	- pH>14 or open loop
	- Pt 100 Ω dysfunction or probe cleaning function
Contact:	Initial resistance 100 mΩ as a maximum (voltage drop 6 V DC 1 A)
	Rated at 831 V AC / 3 A / 277 V AC ; 90 W / 3 A / 30 V DC
	Switching capacity (minimum) 100 mA, 5 V DC (depending of switching frequency, ambient conditions, accuracy)
	Mechanical life time (minimum) 5 x10^6 operations (180 commutation/min)
	Electrical life time (minimum) 2 x10^5 (20 comm./min) [3 A, 125 V AC], [3 A, 30 V DC] and 10^5 (evaluated charge) for 3 A, 125 V AC
ON/OFF Regulation:	Pulse time 0…9999 sec - High and low proportional bandwidth, high and low dead zone.
PID Regulation:	Proportionality 0…200%, - Integrant and Derivative: 0…999 second
Calibration sequence:	Regulation on standby, relay outputs inhibited, analogical outputs stand on last values
Self-cleaning program:	Frequency and duration settings, with regulation inhibited and analogical outputs standing on last values
Measurement output:	0/4-20 mA (maxi 600 Ω) proportional to measurement, galvanic insulated
Temperature output / PID:	0/4-20 mA (max 600 Ω), scaling 0…100°C, galvanic insulated
Program Testing:	simulation through the menu on measurement, temperature, PID and relays outputs
Main power supply:	230 V AC / 50-60 Hz [other on request] - Consumption 10 VA
Models:	Panel mounting, IP65, 72 x 144 mm, connections on screw terminal IP40
	Idem DIN Rail mounting, only for blind monitor
	Wall mounting, IP65, cable glands, connections on screw terminal

OPTION (RS 422 + Logger)

Communication:	RS422 output, J-BUS link, binary slave mode, 2400 to 9600 bauds
Data Logger:	Cycle average measurement record, with a programmable period, 150000 records maxi on MMC (multi media card) / External driver necessary

DIMENSIONS

Extension terminal:
identical to the panel
or wall mounting

Panel mounting instrument

Wall mounting instrument

CODES AND REFERENCES

Code	Reference	Designation
106 500	BAMOPHOX106 E	Panel mounting 72 x 144 - IP 65 front panel - screw terminal IP40
106 501	BAMOPHOX106 E/A	Panel mounting 72 x 144 / Extension blind monitor - screw terminal IP40
106 503	BAMOPHOX106 D/A	DIN Rail mounting / Extension, blind monitor - screw terminal IP40
106 550	BAMOPHOX106 E LOG BUS	Panel mounting 72 x 144 / RS422 + logger - IP 65 front panel - screw terminal IP40
106 700	BAMOPHOX106 M	Wall mounting - IP 65 - cable glands, connections on screw terminal
106 701	BAMOPHOX106 M/A	Wall mounting - IP 65 / Extension, blind monitor - cable glands, connections on screw terminal
106 750	BAMOPHOX106 M LOG BUS	Wall mounting - IP 65 / RS 422 + LOGGER - cable glands, connections on screw terminal

pH/mV meter
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